

Reading the Rains: Local Knowledge and Rainfall Forecasting in Burkina Faso

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Abstract: This paper describes how farmers of Burkina Faso predict seasonal rainfall and examines how their forecasts relate to those produced by meteorological science. Farmers' forecasting knowledge encompasses shared and selective repertoires. Most farmers formulate expectations from observation of natural phenomena. Cultural and ritual spiritualists also predict rainfall from divination, visions, and dreams. Rather than positing local and scientific knowledge as self-exclusive, our research shows that farmers operate in multiple cognitive frameworks. Moreover, they are interested in receiving scientific information because they perceive local forecasts as becoming less reliable as a result of increasing climate variability. Some aspects of local forecasting knowledge, such as those stressing the relationship between temperatures, wind, and rainfall, can help explain meteorology-based forecasts. But significant discordance remains between scientific and local forecasts. The former predict total rainfall quantity at a regional scale, whereas the latter stress rainfall duration and distribution, and are more attuned to crop-weather interactions. Local systems of thought stress the relationship between knowledge and social responsibility. This emphasizes the need for scientists to integrate information dissemination projects with efforts to improve farmers' capacity to respond to forecasts and to cope with suboptimal climate impacts.

Keywords: farmer knowledge, indigenous meteorology, seasonal rainfall forecasts, climate variability, environmental indicators, Burkina Faso.

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